245 Fruit.- Practically all the districts in Transcaucasia are suitable for the cultivation of European and sub-tropical fruits. Oranges and lemons thrive particularly well, and peaches, apricots, plums, apples, pears, and olives are also grown. The plums of Sochi and the oranges of Chavka have a special reputation, and in the Batum district strawberries attain great perfection. Sukhum district and the neighbourhood of Artvin grow the best olives. Melons are intensively cultivated. Fruit-growing is being developed on scientific principles by the peasants and small landowners of Kuban.

246 In 1913 the total area devoted to *hay* was 1,895,000 acres, of which 373,000 were in Terek, 278,000 in Chernomoria, and 227,000 in Baku.

249 The collection of *liquorice* root, which grows wild, is 257 an industry of some significance, and before the war the shipments from Batum, chiefly for America, were increasingly large. The manufacture of liquorice paste, however, was much affected by the high price of crude oil, used as fuel by the factories, and there has been no export of it since 1914.

An attempt has been made to grow beet-root for *sugar* in Kuban, but the production was very small; 8,785 acres were under cultivation in 1914, of which 7,380 belonged to a sugar factory at Gulevichi.

249 The *sunflower* is cultivated for the sake of the oil to be obtained from the seeds, which is used as a substitute for linseed oil. The seeds are crushed in local mills and the stalks are used for the manufacture of potash. The crop covers a greater area than any other except the cereals, but is practically confined to Kuban. In 1914 there were 698,000 acres under cultivation, of which 681,500 acres were in Kuban, and the total output was 298,000 tons, of which the Kuban fields gave 292,000 tons, the rest being grown in the neighbouring Province of Stavropol. In that year the production of Ciscaucasia represented seven-eighteenths of the total production of sunflower oil in the Russian Empire. Its share in the total for 1915, however, was less than one-third, a decrease probably due to the necessity of growing more cereals than usual to meet

3: Anonymous U-4 (no date) 1920 RH1 Caucasia RH1

the falling off of supplies from Russia since the out-break of war. Up to 1914 the export of oil was considerable.

There were 2,020 acres of land under *tea* along the Black Sea coast in the Province of Batum and 75 acres in the Government of Kutais in 1914. Of this area, 1,080 acres were in the Imperial Domains, 489 acres were the property of the firm of Popoff Brothers, and the remaining plantations belonged to thirteen villages near Chavka. The revenue from the sale of tea was in 1909 about £26 per acre on the Imperial plantations. As a result of the success achieved on the Imperial Domains, tea-growing was beginning to be taken up as a local industry, and the National Government granted a sum of about £1,500 towards the construction of a factory at Batum, under the management of the Batum Agricultural Society, where locally-grown tea could be cured. Another factory was also to be erected at Ozurgeti, under the management of an instructor from the Imperial plantation at Chavka. The cultivation of tea was proceeding successfully at Ozurgeti in 1914. In that year the plantations near Batum produced about 160 tons of leaf.

Tobacco is grown in all the provinces of Caucasia except Stavropol, where its cultivation has been abandoned since 1911; but the most important centres are in Kuban, Sukhum, and Chernomoria. The Kuban plantations apparently give the heaviest crops,[1] but the tobacco of the best quality grows on the Black Sea coast, especially near Sukhum and Sochi. Of the total Russian output of high quality Turkish tobacco in 1915, 90 per cent. came from Caucasia, and of this 57·6 per cent. originated from Kuban, 21·2 per cent. from Sukhum, and 11·2 per cent. from other districts. In 1914, out of a total cultivated area of 80,500 acres, producing 32,600 tons of tobacco, 29,000 acres, pro-

[1] Judging by the returns for 1914; but the figures vary in different reports, and moreover the yield fluctuates considerably according to the weather, so that the figures for one season are not a safe basis for generalization.

ducing 15,000 tons, were in Kuban, nearly 33,000 acres, producing 9,700 tons, in Sukhum, and 10,000 acres, yielding 3,600 tons, in Chernomoria. In Transcaucasia tobacco is most cultivated in Tiflis, Batum, and Kutais, but the acreage and output of Zakatali, though actually small, is not inconsiderable in relation to the size of the district.

245 *Wine* is made throughout the country, but though the produce of Ciscaucasia is not inconsiderable in quantity, the grapes are comparatively poor in quality and their juice is thin and acrid. So excellent, on the other hand, are those of Transcaucasia, and in such abundance do they grow, that until the appearance of oïdium, which of late years has necessitated the application of some 4,000 tons of sulphate of copper per annum, thus greatly increasing the cost of production, the peasants were able, by their primitive methods, to make sufficient wine at a cheap rate for their own very liberal consumption. With the introduction of scientific treatment of the vines and of French methods of manufacture the industry should prove lucrative. In a few places modern establishments already existed in 1914, but at present too many kinds of grapes are grown and the plantations are too close together. The district in which the vineyards are most extensive is that of Tiflis; but whereas in 1914 in that Government 81,000 acres yielded only 73,000 tons of grapes, Kutais produced 89,000 tons from 50,000 acres. The localities most celebrated for their wines, however, lie in the Gelendjik district and also in the country round Shemakha and Geokchai, where 22,500 tons of grapes were produced in 1913; in the district between the rivers Kura and Alazan, the ancient Kakhetia, on the borders of Zakatali and Elisavetopol; and at Echmiadzin in the Government of Erivan. In 1914 the total area covered by the vineyards of Caucasia was a little over 300,000 acres, and the yield of grapes 350,000 tons.

241 *Other crops* grown in Caucasia, with their acreage and production in 1914, were the following: potatoes, 234,000 acres, 586,500 tons; spelt, 24,000 acres,

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245 the Caspian littoral in Dagestan. In the north, along the northern shores of the Don River, there extend the vineyards of the former Cossacks of Don. In this area Tsimlyanskaya, and Razdorskaya are the most important wine-growing centers. One part of the vineyards, those along the Kuma and Terek Rivers, and those in Dagestan are irrigated.

Citrus: Tangerines, oranges, lemons, grapefruit were introduced into the Caucasus on an industrial scale during the Soviet period. In the South Caucasus the Lenkoran' Lowland, the Georgian Black Sea littoral, the Abkhaz ASSR and the Adzhar ASSR are the citrus-growing areas. The Adzhar Republic is the most important citrus center of the USSR. In the North Caucasus the Black Sea coast of the Krasnodar Kray is the only citrus-growing area.

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●249 Sugar beets: The main sugar-beet area is the Kuban valley, northward from Krasnodar. In the South Caucasus this crop was recently introduced to Imeretia (Georgian SSR), and to Armenia.

Tobacco: Especially the Turkish kind is cultivated both in the South and in the North Caucasus. In the South Caucasus the tobacco fields are concentrated in three different areas. One is in Azerbaijan between Zakataly and Kuba. The second is in Armenia and in Nakhichevan' ASSR along the Aras River. The third is in Kolkhida and in the Adzhar and

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249 Abkhaz republics. In the Adzhar Republic the fields are located around Batumi and in the higher part of the republic. The Abkhaz area, which produces the best quality, is one of the major tobacco-growing areas of the USSR. The center is Sukhumi. In the North Caucasus the main tobacco-growing areas are in the Krasnodar Kray. The fields there are mostly concentrated in the Adyge AO and along the Black Sea littoral.

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245 Tea: It is one of the recently introduced subtropical plants, and is cultivated mostly in the South Caucasus. The chief tea-growing areas are the Abkhaz and Adzhar republics and Kolkhida. The Adzhar ASSR is the most important tea-growing area in the USSR. In eastern Trans-caucasia an important tea-growing area is the Lowland of Lenkoran'. In addition to these there are some less important tea-growing areas in the interior of Georgia and Azerbaijan as well. In the North Caucasus tea is cultivated only on the Black Sea coast of the Krasnodar Kray, an area adjacent to the tea-growing districts of the Abkhaz Republic.

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248 Cotton: The most important fiber plant under cultivation in the Caucasus. It came originally from Central Asia to the South Caucasus. During the Soviet period its cultivation crossed the 43rd parallel and was pushed as far as 47° N. Though the Caucasian crops is the second largest in the USSR, production

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231 South Caucasus: in Middle Azerbaijan; around the cities and town like Zakataly, Nukha, Yevlakh, Kirovabad, Barda, Udzhary, Mir-Bashir, Shusha. One also finds a very important center of silk culture in Kolkhida and Imeretia along the Tbilisi-Sukhumi railroad line.

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248 Kenaf: A recently introduced fiber plant from India and used as a substitute for jute is cultivated on a commercial scale only in the North Caucasus. The main area of cultivation is Krasnodar Kray around the Adyge AO where it was first cultivated. In addition to this it occurs in the western parts of the Stavropol' Kray, in Dagestan along the Caspian coast, and in the vicinity of Kuba (Azerbaijan). Less important are the kenaf fields in the North Ossetian Republic and along the Akhtuba River.

Ramie or Chinese Nettle: Another recently introduced fiber plant, cultivated nowadays on commercial scale in Kolkhida, north and southward of Mikha-Tskhakaya. To a smaller extent it is well known in the Lenkoran' Lowland as well.

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• 249 Castor bean: This plant is cultivated in the North Caucasus, especially in the steppes of the Krasnodar Kray, in the southern parts of Rostov Oblast, in the northern parts of Stavropol' Kray, in Dagestan around Derbent, and in the northeastern corner of Azerbaijan around the town of Kuba.

7: Columbia U. S-4, 5 1956 RHl Caucasia
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311 Olives: Olive trees are grown in Azer-
245 baijan around Baku and Sal'yany, in Armenia in the Yerevan basin, and in Dagestan along the sea coast.

311 Peanuts: The plant grows in two dis-
244 tinct areas in industrial amounts. One is the western steppe region of the Krasnodar Kray, the other is in the dry East Azerbaijan.

311 Perilla: A plant the oil of which is used
249 especially in the painting industry. The centers of production are the areas north and westwards from Tbilisi, and in the vicinity of Yevlakh (Azerbaijan).

Tung tree: This tree, which comes from China, furnishes an important ingredient of varnishes and lacquers. It is cultivated in Kolkhida, in the Abkhaz ASSR, and in the Lowland of Lenkoran'.

311 Sunflower: A favorite plant especially in
244 the North Caucasus. It likes the dry and sunny steppes and is produced mostly in the Rostov Oblast, in the Krasnodar Kray (in the steppe region), and in the western parts of the Stavropol' Kray. The sunflower of the Cherkess AO is of excellent quality.

Soybeans: Introduced originally from Manchuria. In the Caucasus soybeans are cultivated in the Kuban valley northwest from Krasnodar, and in the Groznyy Oblast.

Linseed-oil Flax: The product of the plant, linseed oil, is used in the painting industry, in medicine, etc. This flax is

7: Columbia U. S-4,5 1956 RH1 Caucasia RH1

cultivated in Rostov Oblast, in Stavropol' Kray (Kabardian ASSR, North Ossetian ASSR), and in Dagestan.

Volatile oil yielding plants: The essential oils used in perfumes, flavoring, or medicine are extracted by various methods from various plants cultivated almost everywhere in the Caucasus.

Kok-sagyz: An important rubber-bearing industrial plant coming originally from Central Asia now is cultivated around the Volga River.

Krym-sagyz: Another imported rubber-bearing plant, is cultivated chiefly in the north western corner of the Krasnodar Kray, and in the Kabardian and North Ossetian autonomous republics (tau-sagyz).

Guayule: The rubber-bearing plant of the South Caucasus. This shrubby plant is native to arid regions of Mexico and the southwestern United States; in the South Caucasus it is cultivated in the arid regions of the Azerbaijan SSR.

Saffron: The flower, the stigmas of which are used as a coloring matter, flavoring, perfume, and medicine, is well known in the North Caucasus. It is cultivated chiefly in the southern parts of the Rostov Oblast, and in the northwestern parts of the Stavropol' Kray.

Bay: One of the evergreen trees cultivated in the South Caucasus. The tree is cultivated especially along the Rion River, and

a. 9 Sugar Beets

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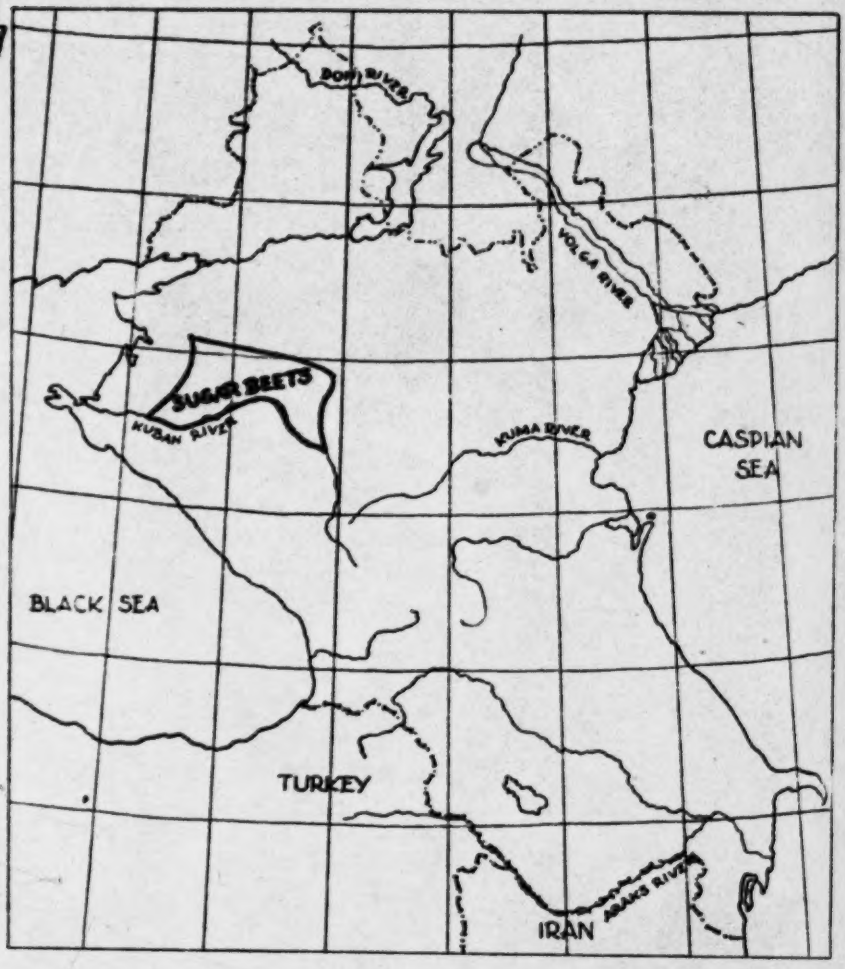

a. 10 Tobacco

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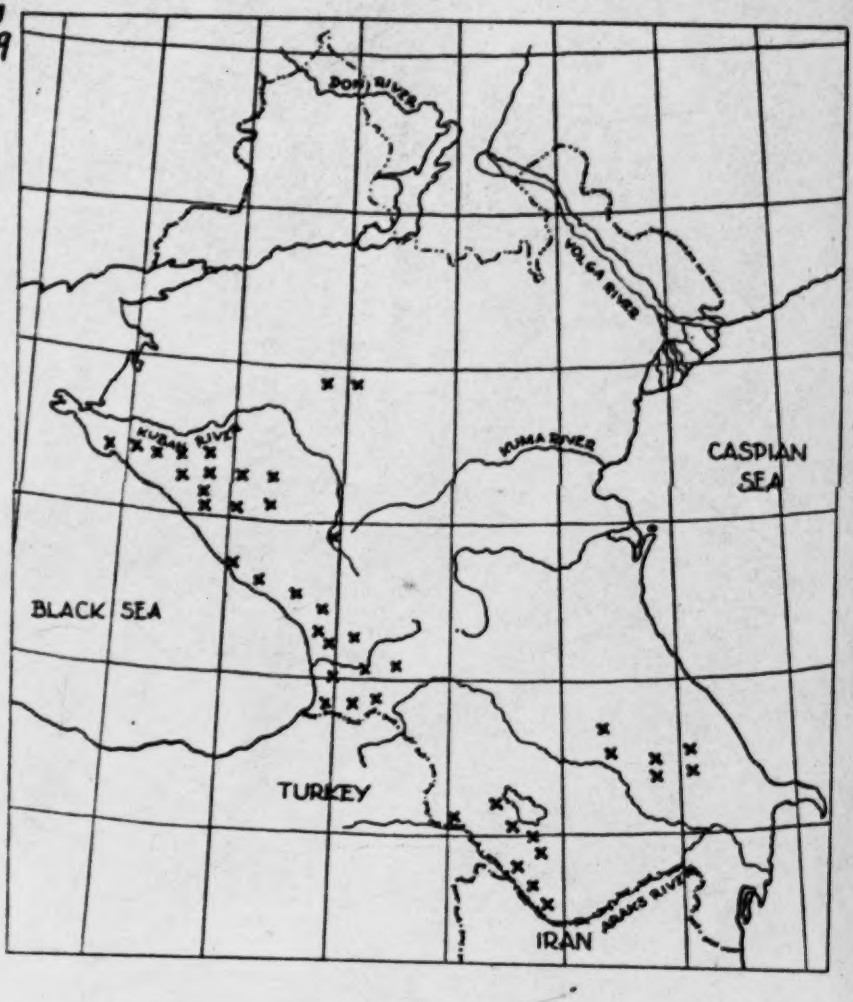

a. 15
Castor Oil Plants, Olive Trees, Peanuts, Perilla, Tung Trees

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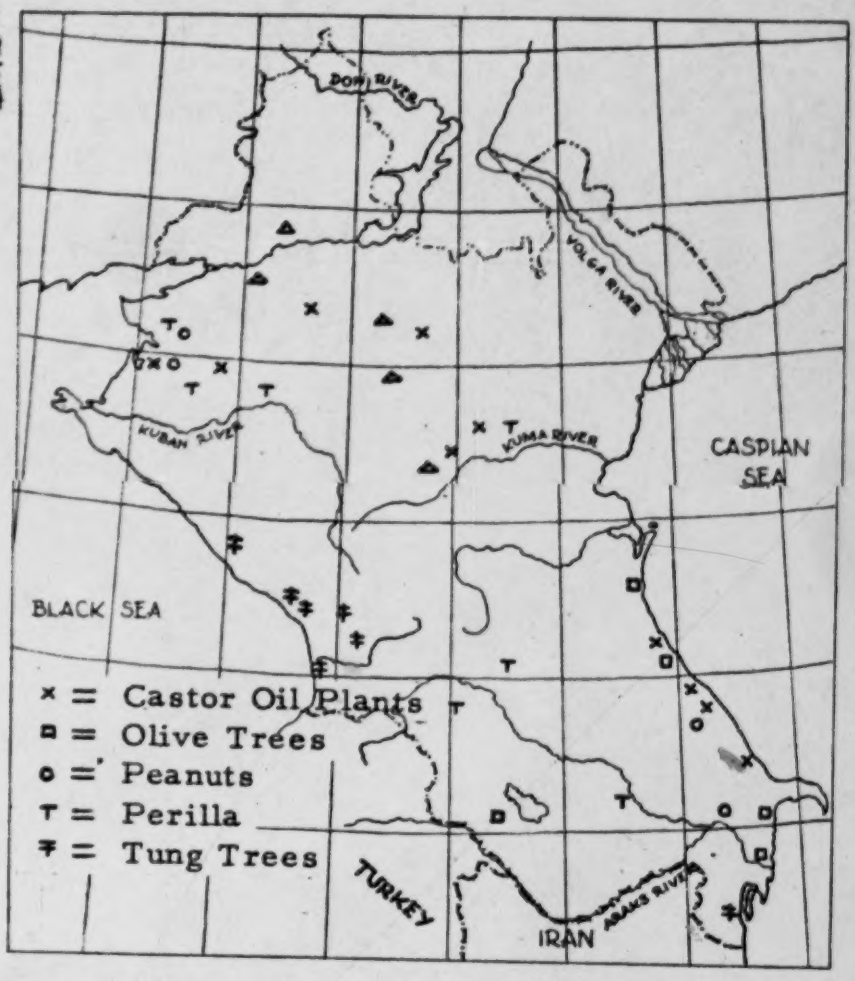
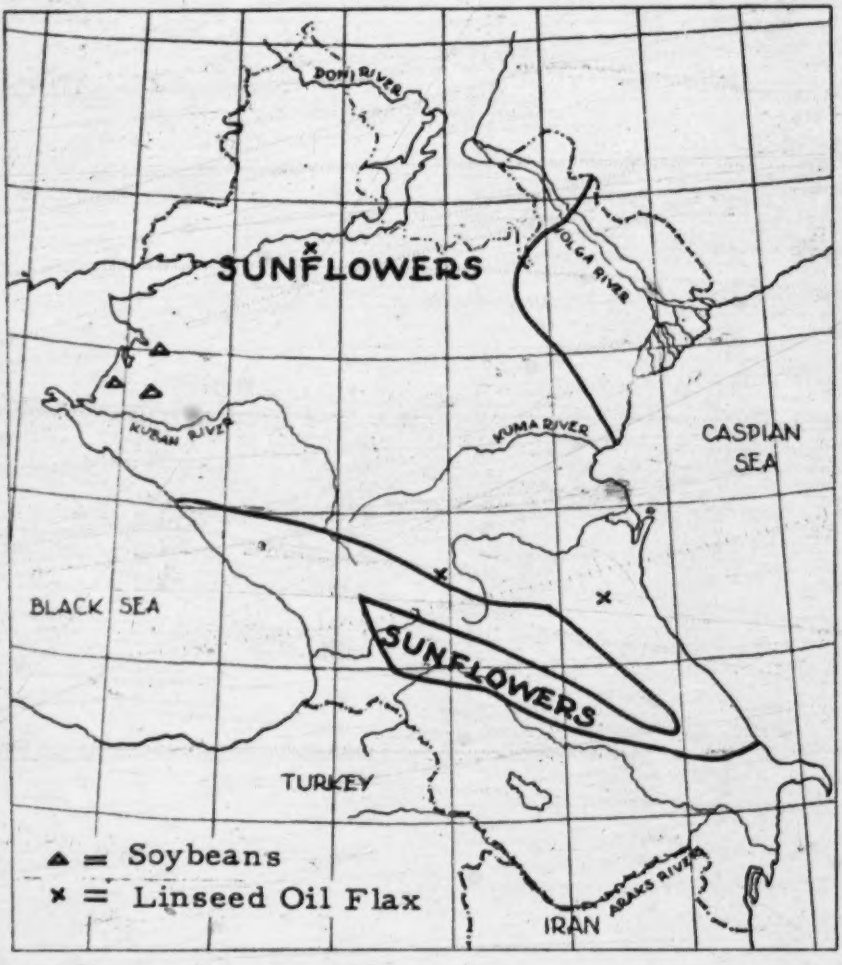


a. 16
Sunflowers, Soy Beans, Linseed Oil Flax



a. 17 Volatile Oil-yielding Plants, Saffron

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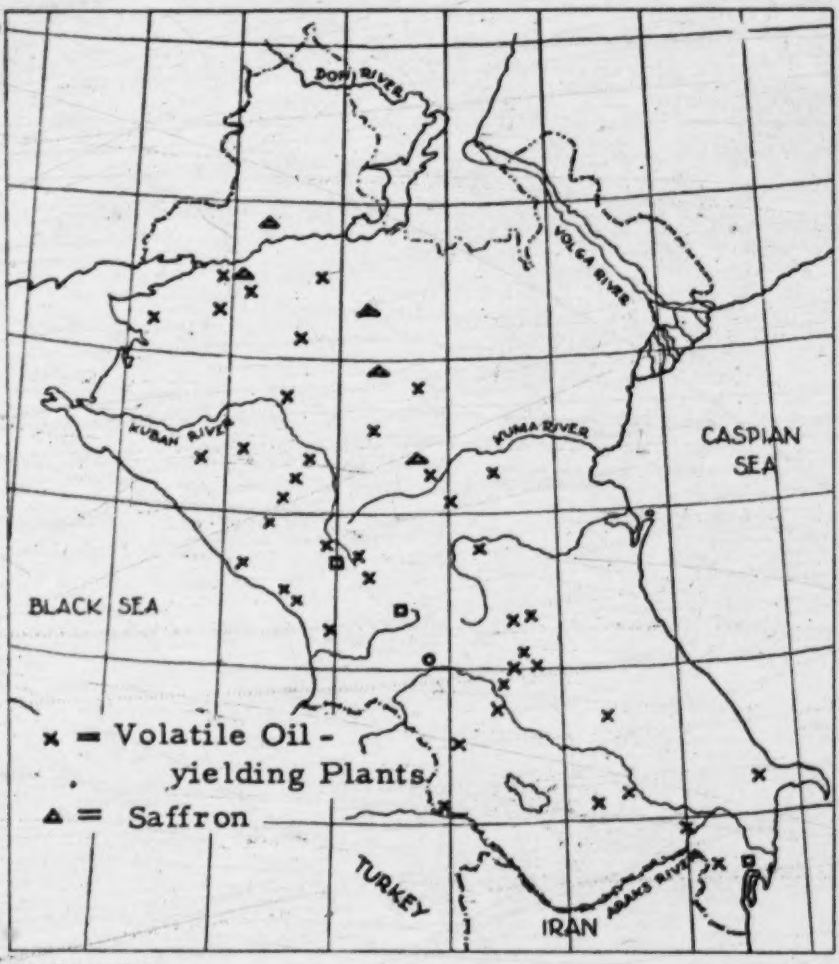

a. 18 Kok-sagyz, Krym-sagyz, Guayule

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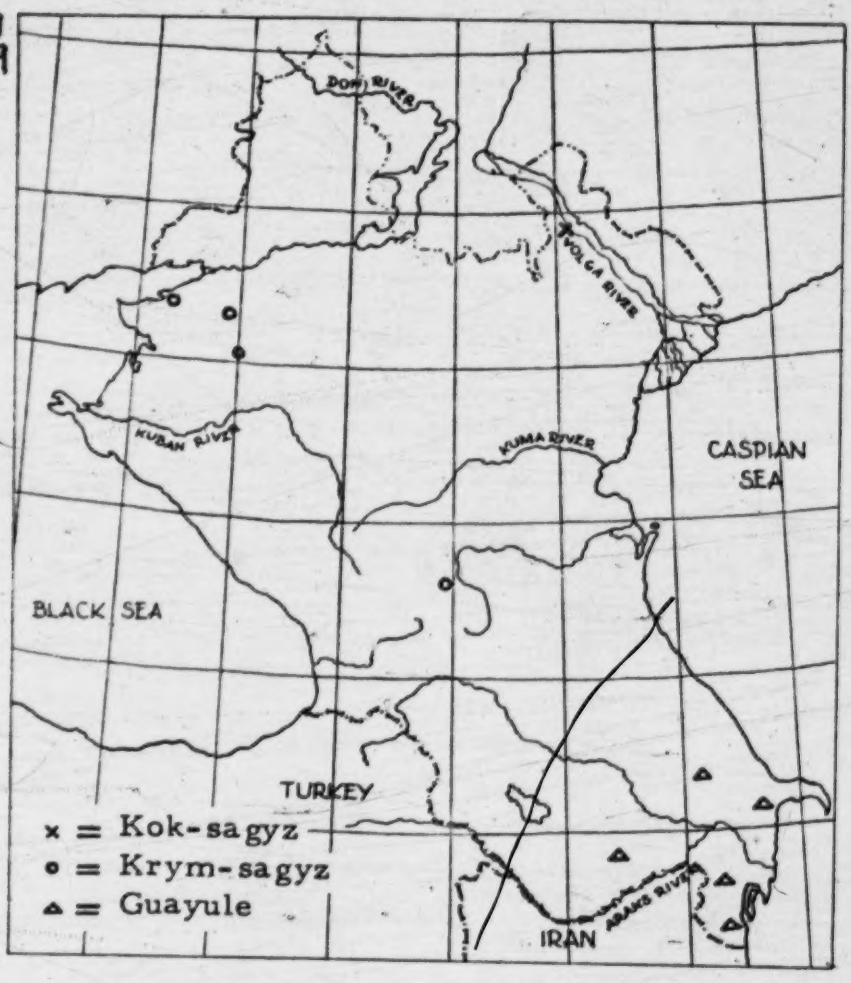

a. 19 Cinchona, Bay, Eucalyptus, Bamboo

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